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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,222	03/25/2004	Hitoshi Hori	F-8169	6581

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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

MAIL DATE.	DELIVERY MODE
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06/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/809,222	Applicant(s) HORI ET AL.	
	Examiner Callie E. Shosho	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Please note that the examiner of record has changed. The new examiner is Callie Shosho.
2. The objection of record with respect to claims 10-12 is withdrawn in light of applicants' response filed 3/6/07.

In light of the new grounds of rejection set forth below, the following action is non-final.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-13 each recite "oil-in-water type emulsion" while claims 1-3 each also recite "water-in-oil type emulsion". The scope of each of the claims is confusing given that it is not clear what is meant by "type". The addition of the word "type" extends the scope of the claims so as to render them indefinite since it is unclear what "type" is intended to convey. The addition of the word "type" to the otherwise definite expression renders the definite expression indefinite by extending its scope. *Ex parte Copenhaver*, 109 USPQ 118 (Bd. App. 1955).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. (U.S. 7,101,930).

Martin et al. disclose composition that is in the form of an oil-in-water emulsion comprising 55-99% self-crosslinking latex possessing average diameter of 0.05-0.5 μm , 1-45% crosslinking agent that is blocked isocyanate or melamine, and 0.5-10% amine modified epoxy-containing resin, i.e. cationic epoxy resin, and water phase. It is disclosed that the self-crosslinking latex is in the oil phase. It is calculated that the amount of blocked isocyanate or melamine is, for instance, 10% (1/10) of the amount of epoxy resin (col.4, lines 53-65, col.9, lines 40-42 and 59-67, col.10, lines 6-8, 10-12, and 50-52, col.11, lines 10-14, col.13, lines 50-57, col.14, lines 8-12, col.16, lines 13-17, col.17, lines 5-7, col.26, lines 36-38, and col.27, lines 15-36).

While Martin et al. fails to exemplify the presently claimed oil-in-water emulsion nor can the claimed oil-in-water emulsion be "clearly envisaged" from Martin et al. as required to meet the standard of anticipation (cf. MPEP 2131.03), nevertheless, in light of the overlap between the claimed oil-in-water emulsion and the oil-in-water emulsion disclosed by Martin et al., it is urged that it would have been within the bounds of routine experimentation, as well as the skill level of one of ordinary skill in the art, to use oil-in-water emulsion which is both disclosed by Martin et al. and encompassed within the scope of the present claims and thereby arrive at the claimed invention.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chan (U.S. 3,766,105) discloses oil-in-water pigment emulsion comprising self-crosslinking resin emulsion and melamine-formaldehyde resin, however, there is no disclosure of

method of preparing oil-in-water emulsion as required in present claim 1 or present claim 4 and no disclosure of epoxy resin having cationic group as required in present claim 7.

Serobian (U.S. 7,067,573) discloses oil-in-water emulsion comprising internally crosslinked polymer, however, however, there is no disclosure of method of preparing oil-in-water emulsion as required in present claim 1 or present claim 4 and no disclosure of epoxy resin having cationic group or of blocked isocyanate and/or melamine as required in present claim 7.

Kojima et al. (U.S. 5,110,847) disclose oil-in-water paint prepared by phase conversion process comprising adding ammonia or amine and water to solution of epoxy resin, hardener, and acrylic resin. However, there is no disclosure of internally crosslinked fine resin particle as required in all the present claims and no requirement that the epoxy is cationic epoxy as required in present claim 7.


Tooyama et al. (U.S. 5,135,969) disclose composition depositable by cationic electrodeposition wherein the composition comprises aqueous cationic resin neutralized with acid, water-dispersion of inter-crosslinked polymer, and melamine or blocked isocyanate. However, there is no disclosure of oil-in-water emulsion as required in all the present claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS

5/29/07